Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A disk drive coupled to a host computer comprising:

an interface which delivers a plurality of host blocks from the host computer to the disk drive, each of the plurality of host blocks having a predetermined length; and,

a data buffer which receives the plurality of host blocks, wherein the host blocks are appended to one another to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1, and wherein the host blocks are not compressed while being delivered from the host computer to the disk drive.

2. (original) The disk drive of claim 1 further including a disk surface upon which the disk block is stored.

3. (original) The disk drive of claim 1 further including an ECC field associated with the disk block.

4. (original) The disk drive of claim 1, wherein a single ECC field corresponds with N host blocks.

5. (original) The disk drive of claim 1, wherein a single pre-data field corresponds with N host blocks.

6. (original) The disk drive of claim 1, wherein a single post-data field corresponds with N host blocks.

7. (original) The disk drive of claim 1, wherein the disk block forms part of a disk sector that is stored in a data sector on a disk surface.

8. (original) The disk drive of claim 7 further including a safety sector which stores a copy of the disk sector when a write operation is performed.

9. (original) The disk drive of claim 8, wherein the copy of the disk sector is stored in the safety sector when less than N host sectors are to be overwritten in the disk sector.

10. (original) The disk drive of claim 8, wherein the data sector has an address and an identifier is stored in the copy of the disk sector to identify the address of the data sector.

11. (original) The disk drive of claim 9, wherein X host sectors are overwritten and (N-X) host sectors are not overwritten, where X is a natural number between 1 and N-1, to form a modified disk sector.

12. (original) The disk drive of claim 11, wherein the modified disk sector is stored in the data sector.

13. (original) The disk drive of claim 12, wherein the safety sector is erased after the modified disk sector has been stored in the data sector.

14. (original) The disk drive of claim 13, wherein the safety sector is erased by modifying the identifier such that an illegal address for a data sector is specified.

15. (original) The disk drive of claim 13, wherein the safety sector is erased by performing a background operation.

16. (original) The disk drive of claim 8, wherein the safety sector is at a location on the disk surface which corresponds with a track of the data sector.

17. (original) The disk drive of claim 16, wherein the safety sector is at a location which is offset from the track of the data sector, so as to avoid microjogging.

18. (currently amended) A disk drive comprising:

a disk surface onto which a disk block is stored, the disk block having a predetermined length; and,

a data buffer for receiving the disk block read from the disk surface and parsing the disk block into a plurality of host blocks having a predetermined length, wherein the

length of the disk block is equal to N times the length of the host block, where N is a natural number greater than 1, and wherein the disk block and the plurality of host blocks are not decompressed.

19. (original) The disk drive of claim 18 further including an interface for coupling the disk drive to a host computer, wherein data is communicated from the disk drive to the host computer via the interface in a length corresponding to that of a host block.

20. (currently amended) A method for storing data in a disk drive coupled to a host computer via an interface, the method comprising the steps of:

delivering a plurality of host blocks from the host computer to the disk drive via the interface, wherein each of the plurality of host blocks have a predetermined length, wherein the host blocks are not compressed while being delivered from the host computer to the disk drive; and,

appending the host blocks to one another to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1.

21. (original) The method of claim 20 further comprising the step of storing the disk block onto a disk surface.

22. (original) The method of claim 20 including the step of appending an ECC field to the disk block.

23. (original) The method of claim 20, wherein a single ECC field corresponds with N host blocks.

24. (original) The method of claim 20, wherein a single pre-data field corresponds with N host blocks.

25. (original) The method of claim 20, wherein a single post-data field corresponds with N host blocks.

26. (original) The method of claim 20, wherein the disk block forms part of a disk sector that is stored in a data sector on a disk surface.

27. (original) The method of claim 26 including the step of storing a copy of the disk sector in a safety sector when a write operation is performed.

28. (original) The method of claim 27, wherein the copy of the disk sector is stored in the safety sector when less than N host sectors are to be overwritten in the disk sector.

29. (original) The method of claim 27, wherein the data sector has an address and an identifier is stored in the copy of the disk sector to identify the address of the data sector.

30. (original) The method of claim 28 including the step of forming a modified disk sector by overwriting X host sectors and not overwriting (N-X) host sectors, where X is a natural number between 1 and N-1.

31. (original) The method of claim 30 including the step of storing the modified disk sector in the data sector.

32. (original) The method of claim 31 including the step of erasing the safety sector after the modified disk sector has been stored in the data sector.

33. (original) The method of claim 32, wherein the step of erasing the safety sector is performed by modifying the identifier such that an illegal address for a data sector is specified.

34. (original) The method of claim 32 including the step of performing a background operation to erase the safety sector.

35. (original) The method of claim 27, wherein the safety sector is at a location on the disk surface which corresponds with a track of the data sector.

36. (original) The method of claim 35, wherein the safety sector is at a location which is offset from the track of the data sector, so as to avoid microjogging.

37. (currently amended) A method for storing data in a disk drive coupled to a host computer via an interface, the method comprising the steps of:

storing data on a disk surface in a disk block having a predetermined length; and,

presenting data from the disk drive to the interface as a host block having a predetermined length, wherein the predetermined length of the disk block is equal to N times the predetermined length of the host block, where N is a natural number greater than 1, and wherein the host block is not decompressed.

38. (new) A disk drive coupled to a host computer comprising:

an interface which delivers a plurality of host blocks from the host computer to the disk drive, each of the plurality of host blocks having a predetermined length;

a data buffer which receives the plurality of host blocks, wherein the host blocks are appended to one another to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1, and wherein the disk block forms part of a disk sector that is stored in a data sector on a disk surface; and,

a safety sector which stores a copy of the disk sector when a write operation is performed, wherein the copy of the disk sector is stored in the safety sector when less than N host sectors are to be overwritten in the disk sector.

39. (new) A disk drive coupled to a host computer comprising:

an interface which delivers a plurality of host blocks from the host computer to the disk drive, each of the plurality of host blocks having a predetermined length;

a data buffer which receives the plurality of host blocks, wherein the host blocks are appended to one another to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1, and wherein the disk block forms part of a disk sector that is stored in a data sector on a disk surface; and,

a safety sector which stores a copy of the disk sector when a write operation is performed, wherein the data sector has an address and wherein an identifier is stored in the copy of the disk sector to identify the address of the data sector.

40. (new) The disk drive of claim 38, wherein X host sectors are overwritten and (N-X) host sectors are not overwritten, where X is a natural number between 1 and N-1, to form a modified disk sector.

41. (new) The disk drive of claim 40, wherein the modified disk sector is stored in the data sector.

42. (new) The disk drive of claim 41, wherein the safety sector is erased after the modified disk sector has been stored in the data sector.

43. (new) The disk drive of claim 42, wherein the safety sector is erased by modifying the identifier such that an illegal address for a data sector is specified.

44. (new) The disk drive of claim 42, wherein the safety sector is erased by performing a background operation.

45. (new) A disk drive coupled to a host computer comprising:

an interface which delivers a plurality of host blocks from the host computer to the disk drive, each of the plurality of host blocks having a predetermined length;

a data buffer which receives the plurality of host blocks, wherein the host blocks are appended to one another to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1, and wherein the disk block forms part of a disk sector that is stored in a data sector on a disk surface; and,

a safety sector which stores a copy of the disk sector when a write operation is performed, wherein the safety sector is at a location on the disk surface which corresponds with a track of the data sector and wherein the safety sector is at a location which is offset from the track of the data sector, so as to avoid microjogging.

46. (new) A method for storing data in a disk drive coupled to a host computer via an interface, the method comprising the steps of:

delivering a plurality of host blocks from the host computer to the disk drive via the interface, wherein each of the plurality of host blocks have a predetermined length;

appending the host blocks to one another to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1, wherein the disk block forms part of a disk sector that is stored in a data sector on a disk surface;

storing a copy of the disk sector in a safety sector when a write operation is performed, wherein the copy of the disk sector is stored in the safety sector when less than N host sectors are to be overwritten in the disk sector.

47. (new) A method for storing data in a disk drive coupled to a host computer via an interface, the method comprising the steps of:

delivering a plurality of host blocks from the host computer to the disk drive via the interface, wherein each of the plurality of host blocks have a predetermined length;

appending the host blocks to one another to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1, wherein the disk block forms part of a disk sector that is stored in a data sector on a disk surface;

storing a copy of the disk sector in a safety sector when a write operation is performed, wherein the data sector has an address and wherein an identifier is stored in the copy of the disk sector to identify the address of the data sector.

48. (new) The method of claim 46 including the step of forming a modified disk sector by overwriting X host sectors and not overwriting (N-X) host sectors, where X is a natural number between 1 and N-1.

49. (new) The method of claim 48 including the step of storing the modified disk sector in the data sector.

50. (new) The method of claim 49 including the step of erasing the safety sector after the modified disk sector has been stored in the data sector.

51. (new) The method of claim 50, wherein the step of erasing the safety sector is performed by modifying the identifier such that an illegal address for a data sector is specified.

52. (new) The method of claim 50 including the step of performing a background operation to erase the safety sector.

53. (new) A method for storing data in a disk drive coupled to a host computer via an interface, the method comprising the steps of:

delivering a plurality of host blocks from the host computer to the disk drive via the interface, wherein each of the plurality of host blocks have a predetermined length;

appending the host blocks to one another to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1, wherein the disk block forms part of a disk sector that is stored in a data sector on a disk surface;

storing a copy of the disk sector in a safety sector when a write operation is performed, wherein the safety sector is at a location on the disk surface which

corresponds with a track of the data sector and wherein the safety sector is at a location which is offset from the track of the data sector, so as to avoid microjogging.

54. (new) A disk drive coupled to a host computer comprising:

a plurality of host blocks delivered from the host computer to the disk drive, each of the plurality of host blocks having a predetermined length,

wherein the host blocks are appended to one another in the disk drive to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1, and wherein the host blocks are not compressed while being delivered from the host computer to the disk drive.

55. (new) A disk drive comprising:

a disk surface onto which a disk block is stored, the disk block having a predetermined length,

wherein the disk block read from the disk surface, wherein the disk block is parsed into a plurality of host blocks having a predetermined length, wherein the length of the disk block is equal to N times the length of the host block, where N is a natural number greater than 1, and wherein the disk block and the plurality of host blocks are not decompressed prior to delivery to a host computer.

56. (new) A method for storing data in a disk drive coupled to a host computer, the method comprising the steps of:

delivering a plurality of host blocks from the host computer to the disk drive, wherein each of the plurality of host blocks has a predetermined length, wherein the host blocks are not compressed while being delivered from the host computer to the disk drive; and,

appending the host blocks to one another to form a disk block having a length, wherein the length of the disk block is equal to N times the length of each host block, where N is a natural number greater than 1.

57. (new) A method for storing data in a disk drive coupled to a host computer, the method comprising the steps of:

storing data on a disk surface in a disk block having a predetermined length; and,

presenting data from the disk drive to host computer as a host block having a predetermined length, wherein the predetermined length of the disk block is equal to N times the predetermined length of the host block, where N is a natural number greater than 1, and wherein the host block is not decompressed prior to being presented to the host computer.